

Roll No.

23532

M. Tech. 3rd Sem.

(Embedded System and VLSI Design)

Examination – January, 2016

EMBEDDED CONTROL SYSTEM

Paper : MT-VLES-603

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions.

1. (a) Explain how hardware is controlled with software. 10
- (b) Explain switch input detection. 10
2. Explain in detail the LCD module display. 20
3. (a) Explain R2R Ladder DAC. 10
- (b) Explain multichannel analog to digital data acquisition. 10

4. Explain Asynchronous serial communication. Also explain in detail the RS-232 and RS 455. 20
5. Explain the bidirectional control of motors and stepper motor control using embedded C programming. 20
6. (a) Explain ADC 0809 in detail. 10
(b) Explain low level PC serial I/O module. 10
7. What is an interrupt ? Explain interrupt latency, response and recovery. Also comment on the ISR processing time. 20
8. Write short note on : 20
(a) Keyboard basics.
(b) Multiplexed LED displays.
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